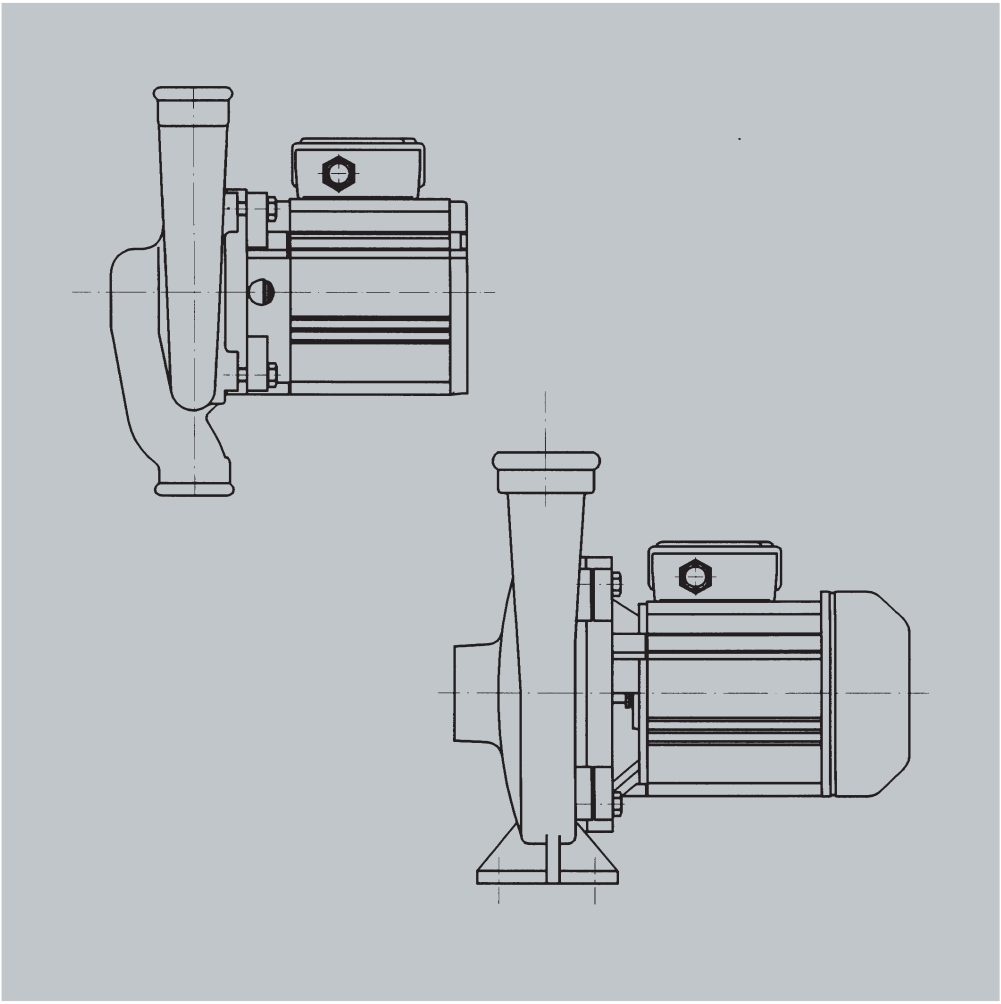
KOLMEKS
EFFICIENT RELIABILITY

SERIES
AMK
AHV
AH
ASH
AE
AKP
ASV
ASP
AP

CIRCULATING PUMPS

INSTRUCTION MANUAL



04.01.2010

TECHNICAL DATA

TYPE	r/min	kW	A (400V)	kg
AMK-26/4	1500	0.03	0.16	7
AHV-25/4	1500	0.02	0.14	9
/2	3000	0.06	0.21	10
AH-25/4	1500	0.02	0.14	8
/2	3000	0.06	0.21	9
AE-20/4	1500	0.03	0.18	10
	1500	0.05	0.21	10
	1500	0.08	0.28	11
/2	3000	0.25	0.70	11
	3000	0.65	1.80	14
AE-25/4	1500	0.05	0.21	10
AE-26	1500	0.08	0.28	11
/2	3000	0.25	0.70	11
	3000	0.65	1.80	14
AE-32, -33/4	1500	0.2	0.65	15
/2	3000	1.1	2.80	20
	3000	1.5	3.30	28

TYPE	r/min	kW	A (400V)	kg
AKP-20/4	1500	0.02	0.14	8
/2	3000	0.06	0.21	8
AKP-25/4	1500	0.05	0.2	10
ASV-27/2	3000	0.25	0.70	12
	3000	0.65	1.80	15
AP-15/4	1500	0.03	0.18	8
	1500	0.05	0.21	8
/2	3000	0.25	0.70	9
AP-20/4	1500	0.05	0.21	10
AP-25	1500	0.08	0.28	11
/2	3000	0.25	0.70	12
	3000	0.65	1.80	15
AP-32, -33/4	1500	0.2	0.65	18
/2	3000	1.1	2.80	22
	3000	1.5	3.30	34

The noise level of the pumps is 28-60 dB(A) depending on the type and power.

DESIGN AND FUNCTION

The pump and motor constitute a unit, where the rotating parts of both the pump and the motor are on the same shaft (mono-block construction). The motor is of a dry construction and its bearings work at the same time as bearings for the whole pump.

Motor: Fully-enclosed A.C. motor
Protection form IP 54
Insulating class F
Max. temperature of environment + 45 °C

SAFETY SYMBOLS

 Sign of danger to persons

 Sign of voltage danger

ATTN Sign of danger to safe operation of the pump and/or protection of the pump itself

FIELDS AND LIMITS OF APPLICATION AND USE

	Clean, thin, non-aggressive liquids	
AMK	- circulating water for heating and cooling	
AHV	- water-glycol mixtures, recommendation:	
AH	propylenglycol max. 40 %	
ASH		
AE	Nominal pressure	10 bar
	Max. temperature	+ 100 °C
		(+ 120 °C with bronze impeller)

	Clean, thin, slightly aggressive liquids	
AKP	- domestic water, oxygen-rich waters	
ASV		
ASP	Nominal pressure	10 bar
AP	Max. temperature	+ 100 °C
		(+ 120 °C with bronze impeller)

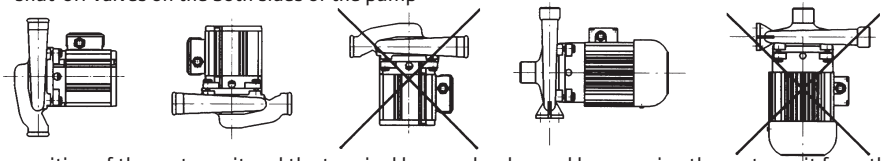
The nominal pressure and the max. temperature of pumped liquid are stamped on the pump data plate.
Never use the pump in any other application or conditions without manufacturer's acceptance.
The pump surface temperature may cause danger depending on the working conditions.

STORAGE

Pumps shall be stored in a dry and cool place protected from dust. When the pump serves as a stand-by or is stopped for longer time for some reason, it is necessary to start it for a while after two weeks stoppage.

INSTALLATION AND START-UP

When installating the pump pay attention to the following:
- space enough for service and inspection of the pump
- shut-off valves on the both sides of the pump



The position of the motor unit and the terminal box can be changed by removing the motor unit from the pump housing and setting it to the desired position.

All electrical work shall be carried out by an electrician approved by the power supplier.

Check that the voltage on the pump data plate corresponds to the mains voltage.

ATTN

A starter must always be used and should be an ordinary motor protection breaker. Make sure that the overload protection is set no higher than the rated current specified on the pump data plate.

Check the direction of rotation of the pump during start-up and always after re-connection. The direction is indicated by an arrow on the pump housing and motor. Before starting the pump fill and vent the system.

ATTN Never start or let the pump run dry.

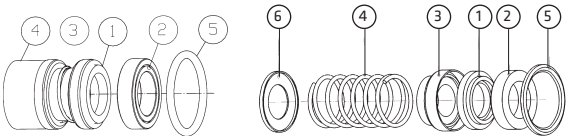
After starting make sure that there is no extra noise coming from the pump and that no leakages appear.

ATTN An inverter can be used for regulating the speed of rotation of the pump. An inverter must be adjusted to prevent the overload of the motor. The current switch-off is to be adjusted according to rated current.
Note. The use of over 50 Hz frequency may cause the verload of the motor.

MAINTENANCE AND REPAIR

The pump doesn't need any regular servicing. As a shaft seal is used an adjustment free mechanical seal. It is a wearing part which has to be replaced if it starts to leak. Note that few drops leakage per hour can be quite normal especially when coolants (f.ex. glycol) are pumped.

Shaft seal:

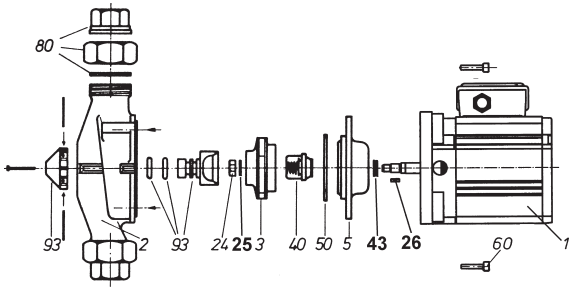


1. Rotating ring
2. Stationary ring
3. Body/bellows
4. Spring (not in serie -AMK)
5. O-ring (N-ring in serie -AMK)
6. Backing plate (not always

The motor is equipped with ball bearings which are lubricated for life and therefore do not need any service. In the case of any malfunction it is recommended to replace the whole motor unit.

WHEN ORDERING SPARE PARTS, PLEASE SPECIFY THE TYPE IDENTIFICATION SERIAL NUMBER, THE SIZE OF THE IMPELLER, THE MOTOR TYPE AND POWER AND THE POSITION NUMBER OF THE SPARE PART.

POS.NO.	DESCRIPTION
1	ELECTRIC MOTOR
2	PUMP HOUSING
3	IMPELLER
5	SEALING FLANGE
24	NUT
25	WASHER(not always)
26	KEY (not always)
40	SHAFT SEAL
43	SPRAY RING
50	O-RING
60	SCREW
80	PIPE CONNECTOR 2 pcs AMK-25, AHV-25, AE-26
93	CAPACITY CONTROL (AHV-25, AKP-25)



EC-DECLARATION OF CONFORMITY

We, KOLMEKS LTD P.O.Box 27 FI-14201 Turenki FINLAND

Declare under our sole responsibility that the circulation pumps

AMK	-SERIE ☐	ASH	-SERIE ☐	ASV	-SERIE ☐
AHV	-SERIE ☐	AE_	-SERIE ☐	ASP	-SERIE ☐
AH	-SERIE ☐	AKP	-SERIE ☐	AP	-SERIE ☐

Serie / serial number _____

to which this declaration relates, are in conformity with the

- Machinery Directive 2006/42/EC
- EMC-directive 2004/108/EC
- Low voltage directive 2006/95/EC
- Standard EN 809:1998+A1:2009

Pumps and pump units for liquids. Common safety requirements.

Turenki 04.01.2010

Kimmo Issakainen
Managing Director

Responsible of technical file

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